REMARKS/ARGUMENTS

Reconsideration is respectfully requested of the Office Action of April 29, 2009.

A request for a one-month extension of time, together with the associated fee, is filed herewith.

The claims in the application are Claims 1, 2, 3 and 5.

The objection to Claim 1 is noted and Claim 1 has been amended in accordance with the Examiner's suggestion. It is believed that the objection has been overcome.

The rejection of Claims 1 and 2 under 35 U.S.C. § 102(b) as anticipated by the *Nowak, et al.*, patent publication (US 2001/0047047), is traversed and reconsideration is respectfully requested. The '047 *Nowak* document does not describe the claimed invention for reasons which follow.

The claims in the present application are directed to adhesive and sealant compositions formed of any one of a number of one or more polymeric materials and which include from about 1 to 15 wt.% of a compacted hydrophobic pyrogenic silica where the silica has been compacted in an especial way; namely, by a roller compactor or by a pressing filter belt. As a result of the way in which the silica has been prepared and, particularly the compaction method, the adhesive and sealant compositions which have the silica incorporated therein are rendered thixotropic. The adhesive and sealant compositions of the present invention are characterized by the fact that the time required for incorporating the compacted hydrophobic pyrogenic silica into the adhesive and sealant polymeric compositions is reduced as compared to the time which would have been required for incorporation of conventional silicas into the same systems. That

is, silicas which have not been compacted with a roller compactor or a pressing filter belt require more time for compounding with polymers.

Dr. Nowak's prior published application (2001/0047047), which is assigned to the same assignee as the present invention, discloses gel compositions based on a reaction product of polyols and polyisocyanates containing as a filler at least one pyrogenically produced metal oxide or metalloid. Examples are the various Aerosil silicas (also produced by assignee) shown in the tables of the cited reference. Although the silicas disclosed in Dr. Nowak's earlier published '047 application are pyrogenically produced silicas, they were not compacted using a roller compactor or a pressing filter belt.

Applicants are filing herewith a Declaration by Dr. Rüdiger Nowak, co-inventor herein, establishing that the silicas described in his published application, U.S. 2001/0047047, were prepared by the method known as the "Carter-Filler" method and are not the same as the silicas which have been compacted by a roller compactor or by a pressing filter belt as specified by the claims in the present application. Dr. Nowak points out in his Declaration that the compaction obtained by using a roller compactor or a pressing filter belt is not the same as the compaction obtained using the Carter-Filler method, see paragraph 3 on page 2 of the Declaration.

Although the earlier published '047 application of Dr. Nowak refers to the Aerosil silicas and mentions compacted products identified by the letter "v" and the letters "vv", they are not the same as the Aerosil products referred to in the present application which are known as Aerosil R202vv60 and Aerosil R202vv90. The latter products have a density of approximately 60 g/l and 90 g/l, respectively. Dr. Nowak points out that because of the way the silicas are

compacted using the roller compactor or the filter belt, the time required to mix the silicas into adhesive and sealant formulations is shorter than the time required when using the conventional Aerosil products such as shown in his earlier published '047 application.

Dr. Nowak points out in paragraph 12 of his Declaration that the ability to shorten mixing time is very important when carrying out commercial scale manufacturing. Thus being able to maintain the thickening and thixotropic effect while lowering the mixing time is a technical advantage that was not foreseen in 2003 which is the year in which the priority application on which the present application is based was filed in Germany. See paragraph 13 of Dr. Nowak's Declaration.

Applicants, therefore, submit that Dr. Nowak has explained that the present invention constitutes a surprising result that could not have been predicted as of the early effective filing date of this application. Dr. Nowak has explained that the silicas defined by the claims herein are not the same as shown in his earlier application. Therefore, the present invention is not anticipated by the *Nowak* published application '047 which was based on a German application filed on February 8, 2000. Accordingly, the rejection of claims 1 and 2 as anticipated should be withdrawn.

The rejection of claims 3 and 5 under 35 U.S.C. § 103(a) as allegedly obvious in view of Dr. Nowak's earlier published application, '047, is traversed and reconsideration is respectfully requested.

Claim 3 is directed to a method for reducing the time needed to incorporate compacted hydrophobic silicas into adhesive and sealant compositions in order to render them thixotropic.

As explained by Dr. Nowak in the enclosed Declaration, it could not have been predicted that by compacting the hydrophobic silicas with a rolling compactor or a pressing filter belt, an improvement in the incorporation time for incorporating the silica into a variety of polymeric compositions would be obtained. Dr. Nowak explains that this was a surprising result and could not have been predicted as of the filing date of this application. Dr. Nowak explains that the result is important from the standpoint of commercial development of the invention insofar as a reduction in mixing time can translate into significant advantages on a commercial scale. These results and beneficial attributes could not have been predicted at the time of filing the priority application by a person having ordinary skill in the art. Consequently, applicants respectfully submit that the rejection of claims 3 and 5 should be withdrawn.

The rejection of Claims 1-3 and 5 under 35 U.S.C. § 103(a) in view of the published application of *Meyer, et al.*, US 2002/0077388, (same assignee) is traversed and reconsideration is respectfully requested.

The *Meyer, et al.,* document describes a functionalized modified silica having silyl groups on the surface which are highly hydrophobic. Although the silica of *Meyer, et al.,* has been structurally modified by a ball mill, [0008], the resulting silica does not have any thickening effect as evidenced by "only slight influence on the rheology" as shown in para. [0015] of the published application. The *Meyer, et al.,* document does not describe or suggest any silica compacted according to the method as defined in the present claims. Applicants' silica is incorporated into the resin much faster than is the case with a silica not compacted as defined in Claim 1. Speed of incorporation is very important; see [0167] to [0170].

As described in the Declaration of Dr. Nowak filed herewith, subjecting the silica to compaction with the specialized roller compaction means or the pressing filter belt results in a surprising improvement in the ability to incorporate the compacted silica into a variety of polymeric materials. Although the *Meyer* document shows incorporation of structurally modified silicas into various polymeric compositions, there is no description or suggestion of the roller compactor and the pressing filter belt for compaction of the silica and, therefore, *Meyer* does not render obvious the presently claimed invention within the meaning of 35 U.S.C. § 103(a).

Silence in the *Meyer* document with respect to compaction using a roller compactor or a pressing filter belt is not the equivalent of a full written description.

Should the rejection be based on a theory of inherency that the *Meyer* disclosure would inherently produce applicants' product, it is well regarded and recognized that an inherency argument must be based on facts and not speculation.

With regard to the discussion regarding reduced viscosity as being consistent with a decrease in mixing time, there is nothing in the Official Action which suggests that *Meyer* would result in the benefits which are explained by Dr. Nowak in his Declaration. Furthermore, there is no evidence that the *Meyer* process would necessarily result in a reduction in the mixing time.

The rejection of Claims 1 to 3 and 5 under 35 U.S.C. § 103(a) in view of *Meyer, et al.* '388, taken with *Klingle, et al.*, U.S. patent 4,877,595, is traversed and reconsideration is respectfully requested. The *Meyer* document has already been discussed above and the comments apply here as well. *Klingle,* also assigned to the same assignee as the present

application, discloses pyrogenically prepared silica compressed by a rotary filter equipped with a pressing band. However, there is nothing in the *Klingle* disclosure which would suggest that polymeric compositions and, more particularly, adhesive and sealant compositions could be mixed more rapidly by using compacted silica being prepared by a rotary compactor or a pressing filter belt. Hence, there is no reason for a person skilled in the art to change the way the *Meyer* silicas are prepared. The Official Action does not state a rationale for the rejection based on obviousness.

Although *Meyer* incidentally mentions that the silica can be readily dispersed in a silicon rubber, there is no appreciation of the unexpected results explained by Dr. Nowak in his Declaration filed herewith. Accordingly, the rejection based on *Meyer* and *Klingle* should be withdrawn.

The rejection of claims 1 to 3 and 5 under 35 U.S.C. § 103(a) as allegedly obvious over *Gruenewaelder*, WO2001/090271, taken with *Hasenzahl, et al.*, U.S. published application 2002/0197311, is traversed and reconsideration is respectfully requested.

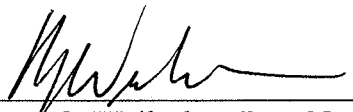
The *Gruenewaelder* reference discloses polyurethane adhesives containing a silica thickener but does not disclose how the silica has been compacted and contains no suggestion that compaction could be advantageous. Clearly, there is no suggestion in *Gruenewaelder* that applicants' compacted silica would bring about reduced mixing times..

The *Hasenzahl* document discloses pyrogenic silica wherein the compaction is by means of a rotary vacuum filter which is alleged to be "consistent with" a pressing filter belt. However, neither of the references teaches how to reduce the mixing time for achieving an effective

adhesive or sealant composition including hydrophobic silica. Nor does the record show that the *Hasenzahl* silica is the same as applicants. Dr. Nowak has explained in his Declaration filed herewith that the results obtained here were unexpected and surprising and could not have been predicted based on the prior art. Applicants respectfully submit that no *prima facie* obviousness has been established. Accordingly, it is respectfully submitted that the rejection should be withdrawn.

Favorable action at the Examiner's earliest convenience is respectfully requested.

Respectfully submitted,



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